In the Claims

1. (Canceled)

2. (Currently Amended) The method as set forth in claim [[1]] 8, wherein the synthetic scene comprises a three dimensional model of an environment.

3. (Currently Amended) The method as set forth in claim [[1]] 8, wherein extracting further comprises extracting depth information of the synthetic scene.

4. (Currently Amended) The method as set forth in claim [[1]] 8, wherein the environment comprises a race track.

5. (Currently Amended) The method as set forth in claim [[1]] 8, wherein establishing further comprises re-positioning the virtual camera as the tracked camera changes.

6. (Canceled)

7. (Currently Amended) The method as set forth in claim [[1]] 8, further comprising animating the synthetic tracked object according to the position and orientation information.

8. (Currently Amended) ~~The~~ A method for generating a depth map used to render objects ~~as set forth in claim 6, further~~ comprising:

establishing a virtual camera using camera data of a tracked camera which defines a viewpoint for a synthetic scene, wherein the camera data is generated by a live camera focused on at least part of a live scene corresponding to the synthetic scene;

setting the field of view of the virtual camera to the field of view of the tracked camera;

positioning a synthetic tracked object in the scene according to position information of a tracked object;

embedding ~~combining~~ the synthetic tracked object into ~~with~~ the live scene using depth information stored in the depth map; and

extracting depth information of the positioned synthetic tracked object to generate depth map.

9. (Original) The method as set forth in claim 8, further comprising using image segmentation to align the depth map in accordance with real edges in the live scene.

10. (Currently Amended) The method as set forth in claim [[1]] 8, wherein camera data is recorded from a camera focused on at least part of a scene corresponding to the synthetic scene, the method further comprising combining the synthetic tracked object with video using depth information stored in the depth map.

11. (Currently Amended) The method as set forth in claim [[1]] 8, wherein the depth map is further refined by distorting grid coordinates of the depth map based upon characteristics of the tracked camera which defines the field of view.

12. (Canceled)

13. (Currently Amended) The system as set forth in claim [[12]] 19, wherein the synthetic scene comprises a three dimensional model of an environment.

14. (Currently Amended) The system as set forth in claim [[12]] 19, wherein the environment comprises a race track.

15. (Currently Amended) The system as set forth in claim [[12]] 19, wherein depth information of the synthetic scene further provides information to generate the depth map.

16. (Currently Amended) The system as set forth in claim [[12]] 19, wherein the virtual camera is re-positioned to track camera data changes.

17. (Canceled)

18. (Currently Amended) The system as set forth in claim [[12]] 19, further comprising an animation unit to animate ~~the model of~~ the synthetic tracked object according to the position and orientation information.

19. ~~The~~ A system ~~as set forth in claim 17, further~~ comprising:

a tracked camera configured to define a viewpoint for a synthetic scene, wherein the tracked camera comprises a live camera and the camera data is generated by the tracked camera focused on at least part of a live scene corresponding to the synthetic scene;

a virtual camera using camera data of the tracked camera, the field of view of the virtual camera set to the field of view of the tracked camera;

a synthetic tracked object in the scene positioned according to position information of a tracked object, wherein depth information of the tracked object provides information to generate a depth map; and

a rendering unit configured to embed ~~generate~~ the synthetic tracked object into ~~with~~ the live scene using depth information stored in the depth map.

20. The system as set forth in claim 19, wherein the rendering unit is further configured to use image segmentation to define the depth map in accordance with real edges in the live scene.

21. The system as set forth in claim 20, wherein the rendering unit distorts grid coordinates of the depth map based upon characteristics of the tracked camera which defines the field of view.

22. (Canceled)

23. (Currently Amended) The system as set forth in claim 22, wherein the synthetic scene comprises a three dimensional model of an environment.

24. (Currently Amended) The system as set forth in claim 22, wherein depth information of the synthetic scene further provides information to generate the depth map.

25. (Currently Amended) The system as set forth in claim 22, wherein the virtual camera is re-positioned to track camera data changes.

26. (Canceled)

27. (Currently Amended) The system as set forth in claim [[22]] 28,wherein the processor is further configured to animate ~~the model of~~ the tracked synthetic object according to the position and orientation information.

28. (Currently Amended) ~~The~~ A system ~~as set forth in claim 26~~ for generating a depth map used to render synthetic objects comprising:

a tracked camera configured to define a viewpoint for a synthetic scene, wherein the tracked camera comprises a live camera coupled to the processor and the camera data is generated by the tracked camera focused on at least part of a live scene corresponding to the synthetic scene;

a processor configured to generate a virtual camera using camera data of the tracked camera, the field of view of the virtual camera set to the field of view of the tracked camera and a synthetic tracked object in the scene positioned according to position information of the tracked object, wherein the processor is further configured to ~~generate~~ embed the synthetic tracked object ~~model~~ into ~~with~~ the live scene using depth information stored in the depth map; and

a depth map of the positioned tracked object.

29. (Original) The system as set forth in claim 28, wherein the processor is further configured to use image segmentation to define the depth map in accordance with real edges in the live scene.

30. (Original) The system as set forth in claim 29, wherein the processor is further configured to distort grid coordinates of the depth map based upon characteristics of the tracked camera which defines the field of view.

31. (Canceled)

32. (Currently Amended) The computer readable medium as set forth in claim [[31]] 37, wherein the synthetic scene comprises a three dimensional model of an environment.

33. (Currently Amended) The computer readable medium as set forth in claim [[31]] 37, wherein establishing further comprises re-positioning the virtual camera to track camera data changes.

34. (Currently Amended) The computer readable medium as set forth in claim [[31]] 37, wherein depth information of the synthetic scene is further used to generate the depth map.

35. (Canceled)

36. (Currently Amended) The computer readable medium as set forth in claim [[31]] 37, further comprising animating ~~the model of~~ the tracked synthetic object according to the position and orientation information.

37. (Currently Amended) ~~The~~ A computer readable medium ~~as set forth in claim 35, further~~ comprising instructions, which when executed by a processing system perform a method for generating a depth map used to render objects comprising:

establishing a virtual camera using camera data of a tracked camera which defines a viewpoint for a synthetic scene, wherein the camera data is generated by a live camera focused on at least part of a live scene corresponding to the synthetic scene;

setting the field of view of the virtual camera to the field of view of the tracked camera;

positioning a synthetic tracked object in the scene according to position information of the tracked object;

extracting depth information of the positioned synthetic tracked object to generate a depth map; and

embedding ~~combining~~ the synthetic tracked object into ~~with~~ the live scene using depth information stored in the depth map.

38. (Original) The computer readable medium as set forth in claim 37, further comprising using image segmentation to define the depth map in accordance with real edges in the live scene.

39. (Currently Amended) The computer readable medium as set forth in claim [[31]] 37, further comprising distorting grid coordinates of the depth map based upon characteristics of the tracked camera which defines the field of view.